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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/016,675	12/13/2001	James H. Boyden	4000.2.59	2516

32641 7590 12/21/2005

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EXAMINER

RAMAKRISHNAIAH, MELUR

ART UNIT PAPER NUMBER

2643

DATE MAILED: 12/21/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

<b>Office Action Summary</b>	<b>Application No.</b> 10/016,675	<b>Applicant(s)</b> BOYDEN ET AL.	
	<b>Examiner</b> Melur Ramakrishnaiah	<b>Art Unit</b> 2643	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

#### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

#### Status

- 1) ☒ Responsive to communication(s) filed on 05 October 2005.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

#### Disposition of Claims

- 4) ☒ Claim(s) 1-13, 19-33, 36, 37 and 39-41 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-13, 19-33, 36, 37 and 39-41 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

#### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

#### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some\* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

#### Attachment(s)

- |  |   |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892)   | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)   | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)             |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)<br>Paper No(s)/Mail Date <u>1-29-02, 12-13-02</u> . | 6) <input type="checkbox"/> Other: _____  |

***Claim Rejections - 35 USC § 103***

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

2. Claims 1-2, 7-8, 12, 21-22, 27-28, 32, 41, are rejected under 35 U.S.C. 103(a) as being unpatentable over Hamada (JP11-098484) in view of Kakii (US PAT: 5,815,197).

Regarding claim 1, Hamada discloses an apparatus for receiving light for conversion to a video signal from a position proximate to an eye-level of a person viewing a display, the apparatus comprising: a base (41,50, Drawings: 5-6) an image receiving device (40/52, Drawings: 5-6) that collects light, and a bendable coupling (42/51, Drawings: 5-6) having a proximal end coupled to the base and a distal end coupled to the image receiving device (41/50, Drawings: 5-6), the bendable coupling having a stiffness selected to support distal end at a plurality of positions along and within a circumference a generally hemispherical positioning zone, wherein bendable coupling is deformable into a deployed position in which the distal end is positioned within a deployment zone beside the screen portion (Drawings: 1, 4, paragraphs: 0035-0037, 0016-0033).

Hamada differs from claim 1 in that although he suggests camera (14A/14B, Drawings 1-2) with flexible or bendable coupling can be placed in upper part of the display (13A/13B, Drawing 1); he does not explicitly teach the following: a base mountable on a top side of display, coupling extending from the base in longitudinal

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direction and further extending in transverse direction such that upon mounting the base to the top side of the display coupling extends above the top side and adjacent screen portion of the display.

However, Kakii teaches the following: a base mountable on a top side of display, coupling extending from the base in longitudinal direction and further extending in transverse direction such that upon mounting the base to the top side of the display coupling extends above the top side and adjacent screen portion of the display (figs. 1-2, col. 12, line 64 – col. 14, line 8; and figs. 4 and 11).

Thus, it would have been obvious to one of ordinary skill in the art at the time invention was made to modify Hamada's system to provide for the following: a base mountable on a top side of display, coupling extending from the base in longitudinal direction and further extending in transverse direction such that upon mounting the base to the top side of the display coupling extends above the top side and adjacent screen portion of the display as this arrangement would provide one of the methods, among many possible methods of supporting the camera to achieve eye contact or matching lines of sight between communication partners as taught by Kakii (see abstract).

Regarding claim 21, Hamada discloses a method for receiving light for conversion to a video signal from a position proximate to an eye-level of a person viewing a display with an apparatus comprising a base (41,50, Drawings: 5-6), an image receiving device (40/52, Drawings: 5-6), and bendable coupling having a proximal end coupled to base and a distal end coupled to the image receiving device, the method

comprising: bending the bendable coupling (42/51, Drawings: 5-6) to position the image receiving device proximate to an eye-level of a person viewing the display (13A, Drawing 1), orienting the image receiving device (40/52, Drawings: 5-6), to receive light from along the eye-level, receiving light through the image receiving device, and processing light to generate a video signal (paragraphs: 0035-0037, 0016-0033).

Hamada differs from claim 21 in that he suggests camera (14A/14B, Drawings 1-2) with flexible or bendable coupling can be placed in upper part of the display (13A/13B, Drawing 1); he does not explicitly teach the following: mounting the base on the top side of the display to thereby have the coupling extend above the top side and adjacent a screen portion of the display.

However, Kakii teaches the following: mounting the base on the top side of the display to thereby have the coupling extend above the top side and adjacent a screen portion of the display (figs. 1-2, col. 12, line 64 – col. 14, line 8; and figs. 4 and 11).

Thus, it would have been obvious to one of ordinary skill in the art at the time invention was made to modify Hamada's system to provide for the following: mounting the base on the top side of the display to thereby have the coupling extend above the top side and adjacent a screen portion of the display as this arrangement would provide one of the methods, among many possible methods of supporting the camera to achieve eye contact or matching lines of sight between communication partners as taught by Kakii (see abstract).

Regarding claim 41, Hamada discloses an apparatus for receiving light for conversion to video signal from a position proximate to an eye-level of a person viewing

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display, the apparatus comprising: a base (41,50, Drawings: 5-6), an image receiving means (40/52, Drawings: 5-6) that collects light, and bendable coupling having a proximal end coupled to the base and a distal end coupled to image receiving means, the bendable coupling (42/51, Drawings: 5-6) means having a stiffness selected to support the distal end at a plurality of positions along and within a circumference of a generally hemispherical positioning zone, wherein the bendable coupling means is deformable into a deployed disposition in which the distal end is positioned within the deployment zone beside the screen position (paragraphs: 0035-0037, 0016-0033).

Hamada differs from claim 41 in that although he suggests camera (14A/14B, Drawings 1-2) with flexible or bendable coupling can be placed inn upper part of the display (13A/13B, Drawing 1); he does not explicitly teach the following: a base mountable on a top side of display, coupling means extending from the base in longitudinal direction and further extending in transverse direction such that upon mounting the base to the top side of the display coupling extends above the top side and adjacent screen portion of the display.

However, Kakii teaches the following: a base mountable on a top side of display, coupling means extending from the base in longitudinal direction and further extending in transverse direction such that upon mounting the base to the top side of the display coupling extends above the top side and adjacent screen portion of the display (figs. 1-2, col. 12, line 64 – col. 14, line 8; and figs. 4 and 11).

Thus, it would have been obvious to one of ordinary skill in the art at the time invention was made to modify Hamada's system to provide for the following: a base

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mountable on a top side of display, coupling means extending from the base in longitudinal direction and further extending in transverse direction such that upon mounting the base to the top side of the display coupling extends above the top side and adjacent screen portion of the display as this arrangement would provide one of the methods, among many possible methods of supporting the camera to achieve eye contact or matching lines of sight between communication partners as taught by Kakii (see abstract).

Regarding claims 2, 7-8, 12, 22, 27-28, 32, Hamada further teaches the following: bendable coupling (42/51, Drawings: 5-6) is further deformable into a retracted disposition in which the distal end is not positioned within the deployable zone, image receiving device (40/52, Drawings: 5-6) comprises a camera that process the light to generate the video signal, electric wiring to convey the video signal from the camera to the base, base coupled to the display, bending bendable coupling comprises moving the bendable coupling from a retracted disposition in which the distal end is not positioned within a deployment zone beside a screen portion of the display to a deployed disposition in which distal end is positioned within the deployment zone (paragraphs: 0035-0037), image receiving device (40/52, Drawings: 5-6) comprises a camera that processes the light, conveying the video signal from the camera to the proximal end via electrical wiring extending from camera to the proximal end, coupling the base to the display (paragraphs: 0035-0037, 0016-0033).

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3. Claims 3-6, 23-26, are rejected under 35 U.S.C. 103(a) as being unpatentable over Hamada in view of Kakii as applied to claims 1, 21, 33 above, and further in view of Justkaitis et al. (WO 99/52416, hereinafter Justkaitis)

Regarding claims, 3-6, 23-26, the combination does not teach the following: a coherent fiber optic bundle connected to convey light from the image receiving device to the base, the image receiving device comprises a distal lens positioned to direct light into coherent fiber optic bundle, base comprises a camera that receives light from the coherent fiber optic bundle and processes the light to provide video signal, a proximal lens positioned to direct light from the coherent fiber optic cable into the camera, conveying light from the distal end to the proximal end via a coherent fiber optic bundle, receiving the light comprises capturing the light via a distal lens positioned to direct light into coherent fiber optic bundle, wherein the base comprises a camera that generates the video signal, conveying the light from the proximal end to the camera, conveying the light from the proximal end to the camera comprises positioning lens to direct light from the coherent fiber optic bundle into the camera.

However, Justkaitis discloses imaging apparatus which teaches the following: a coherent fiber optic bundle (1, fig. 1) connected to convey light from the image receiving device to the base, the image receiving device comprises a distal lens (5, fig. 1) positioned to direct light into coherent fiber optic bundle, base comprises a camera (3, fig. 1) that receives light from the coherent fiber optic bundle and processes the light to provide video signal, a proximal lens (fig. 1) positioned to direct light from the coherent fiber optic cable into the camera, conveying light from the distal end to the proximal end



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via a coherent fiber optic bundle, receiving the light comprises capturing the light via a distal lens positioned to direct light into coherent fiber optic bundle, wherein the base comprises a camera that generates the video signal, conveying the light from the proximal end to the camera, conveying the light from the proximal end to the camera comprises positioning lens to direct light from the coherent fiber optic bundle into the camera (fig. 1, page 3 lines 21-30).

Thus, it would have been obvious to one of ordinary skill in the art at the time invention was made to modify Hamada's system to provide for the following: a coherent fiber optic bundle connected to convey light from the image receiving device to the base, the image receiving device comprises a distal lens positioned to direct light into coherent fiber optic bundle, base comprises a camera that receives light from the coherent fiber optic bundle and processes the light to provide video signal, a proximal lens positioned to direct light from the coherent fiber optic cable into the camera, conveying light from the distal end to the proximal end via a coherent fiber optic bundle, receiving the light comprises capturing the light via a distal lens positioned to direct light into coherent fiber optic bundle, wherein the base comprises a camera that generates the video signal, conveying the light from the proximal end to the camera, conveying the light from the proximal end to the camera comprises positioning lens to direct light from the coherent fiber optic bundle into the camera as this arrangement would provide one of the methods, among many possible methods, of imaging the objects so as to suite the application requirements as shown by Justkaitis.

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4. Claims 13, 33, 36-37 are rejected under 35 U.S.C. 103(a) as being unpatentable over Kakii in view of Hamada and Justkaitis.

Regarding claim 13, Kakii discloses an apparatus for receiving light for conversion to a video signal from a position proximate to an eye level of a person viewing a display, the apparatus comprising: a base (6, fig. 2) mountable on top side of the display, a camera disposed within the base, and a coupling having a proximal end to the base and a distal end that supports distal end of the coupling extending from the base in a longitudinal direction and further extending in a transverse direction such that upon mounting the base to the top side of the display the coupling extends above the top side and adjacent screen portion of the display the coupling deformable to move between a deployed disposition in which the distal end of the coupling is positioned within the deployment zone and retracted disposition in which distal end of the coupling is not positioned within the deployment zone (figs. 1-2, col. 12, line 64 – col. 14, line 8; and figs. 4 and 11).

Regarding claim 33, Kakii discloses a method for receiving light for conversion to a video signal from a position proximate to eye-level of a person viewing a display with an apparatus comprising a base, a camera disposed within the base, and a coupling having a proximal end coupled to the base and distal end coupled to the distal end of coupling extending from the base in a longitudinal direction and further extending in a transverse direction, the method comprising: mounting the base (6, fig. 2) on top side of display to thereby have the coupling extend above the top side and adjacent a screen portion of the display, positioning the coupling to position the distal end proximate to an

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eye level of a person viewing the display, orienting the distal end to receive light from the eye level (figs. 1-2, col. 12, line 64 – col. 14, line 8; and figs. 4 and 11).

Kakii differs from claims 13, 19, 33, 39, 40 in that he does not teach the following: a coherent fiber optic bundle that conveys light from a distal end to a proximal end, receiving light in the distal end of the coherent fiber optic cable and conveying light through the fiber optic cable from the distal end to proximal end; bendable coupling to position the camera; a distal lens positioned to direct light into the distal end of the coherent fiber optic bundle, a proximal lens positioned to direct the light from the proximal end of the coherent fiber optic bundle into the camera.

However, Justkaitis teaches the following: a coherent fiber optic bundle that conveys light from a distal end to a proximal end, receiving light in the distal end of the coherent fiber optic cable and conveying light through the fiber optic cable from the distal end to proximal end, a distal lens positioned to direct light into the distal end of the coherent fiber optic bundle, a proximal lens positioned to direct the light from the proximal end of the coherent fiber optic bundle into the camera (fig. 1, page 3 lines 21-30); and Hamda teaches the following: bendable coupling to position the camera (Drawings 5-6, paragraph: 0035).

Thus, it would have been obvious to one of ordinary skill in the art at the time invention was made to modify Kakii's system to provide for the following: a coherent fiber optic bundle that conveys light from a distal end to a proximal end, receiving light in the distal end of the coherent fiber optic cable and conveying light through the fiber optic cable from the distal end to proximal end, a distal lens positioned to direct light into the

distal end of the coherent fiber optic bundle, a proximal lens positioned to direct the light from the proximal end of the coherent fiber optic bundle into the camera as this arrangement would provide one of the methods, among many possible methods, of imaging the objects so as to suite the application requirements as shown by Justkaitis; bendable coupling to position the camera as this arrangement would provide on of the methods, among many possible methods to position the camera to achieve line of sight communications as taught by Hamada.

Regarding claims 36-37, Kakii further teaches the following: coupling comprises moving the coupling from a retracted disposition in which the distal end is not positioned within the deployment zone to a deployed disposition in which the distal end is positioned within the deployment zone (this is implicit from fig. 17; col.19 lines 23-50), coupling a base to the display as shown in fig. 2.

5. Claims 9-10 and 29-30 are rejected under 35 U.S.C. 103(a) as being unpatentable over Hamada in view of Kakii as applied to claims 1, 21 above, and further in view of Sato (JP09-307807).

The combination differs from claims 9-10 and 29-30 in that it does not teach the following: a wireless transmitter positioned at the distal end of the bendable coupling to the receive the video signal from the camera and transmit the video signal, a wireless receiver/base that receives video signal from the wireless transmitter.

However, Sato discloses wireless image pickup device which teaches the following: a camera (1, Drawing 1) wirelessly transmitting image to a controller (2, Drawing 1, see abstract and paragraph: 0006).

Thus, it would have been obvious to one of ordinary skill in the art at the time invention was made to modify the combination to provide for the following: a wireless transmitter positioned at the distal end of the bendable coupling to receive the video signal from the camera and transmit the video signal, a wireless receiver/base that receives video signal from the wireless transmitter as this arrangement would provide another means to transmit images from the camera to receiver as taught by Sato, thus meeting the application requirements.

6. Claims 11 and 31 are rejected under 35 U.S.C. 103(a) as being unpatentable over as applied to claim 1, 21 above, and further in view of Felkel et al. (US PAT: 4,284,898, hereinafter Felkel).

The combination differs from claims 11 and 31 in that it does not teach the following: bendable coupling is translucent.

However, Felkel discloses high voltage stable optical coupler which teaches the following: bendable coupling is translucent (col. 1 lines 6-12).

Thus, it would have been obvious to one of ordinary skill in the art at the time invention was made to modify the combination to provide for the following: bendable coupling is translucent as this arrangement would provide for required coupling to meet the application requirements as taught by Felkel.

7. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Melur Ramakrishnaiah whose telephone number is (571)272-8098. The examiner can normally be reached on 9 Hr schedule.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Curt Kuntz can be reached on (571) 272-7499. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

  
Melur Ramakrishnaiah  
Primary Examiner  
Art Unit 2643